NO	REQUIREMENT	YOUR DOCUMENT	C	N	DOC REVIEW / PRE-ASSESSMENT NOTES	C	N	ASSESSMENT NOTES
5.2.3	Shall use personnel employed by or contracted to the laboratory. Where contractors or additional key personnel are used, the lab shall ensure supervision to evaluate competence of work.		C			C		All personnel are [redacted] Testing Laboratories employees.
5.2.4	Maintain current job descriptions.		C			C		Job descriptions available and reviewed for all relevant lab positions
5.2.5	Authorize and maintain records of such authorization for personnel to perform particular tasks.		C			C		Training matrix and records of training are available and appear appropriate to assure compliance.
5.2.5	Shall maintain records of competence, educational and professional qualifications, training, skills and experience. Information shall be readily available.		C			C		Appropriate records available and reviewed for all personnel associated with the scope testing.

Comments on the laboratory's compliance with this element:

Laboratory personnel appear to be competent to perform their assigned duties. Laboratories training program appears appropriate for the type of testing performed. Policies and procedures in place. Documentation of training activities is maintained and appears appropriate for testing. The training matrix utilized to identify training authorizations and dates appears suitable and identified all relevant training information.

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NO	REQUIREMENT	YOUR DOCUMENT	C	N	DOC REVIEW / PRE-ASSESSMENT NOTES	C	N	ASSESSMENT NOTES
5.3	**Accommodation & Environmental Conditions**							
5.3.1	Facilities shall facilitate correct performance of t/c.		C			C		Lab facilities appear appropriate to perform correct testing.
5.3.2	Monitor, control and record environmental conditions where necessary to maintain quality of t/c.		C			C		Temp and humidity not required to be controlled for the scope testing but are monitored.
5.3.3	Effective separation between areas that are incompatible and to prevent cross-contamination.		C			C		Observed compliance
5.3.4	Access to controlled areas limited.		C			C		Observed compliance
5.3.5	Good housekeeping ensured.		C			C		Laboratory environment appeared appropriately clean and orderly for the type of testing performed.

Comments on the laboratory's compliance with this element:

The laboratory appears compliant with all elements of this section at the time of the assessment.

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NO	REQUIREMENT	YOUR DOCUMENT	C	N	DOC REVIEW / PRE-ASSESSMENT NOTES	C	N	ASSESSMENT NOTES
5.4	**Test & Calibration Methods and Method Validation**							
5.4.1	General							
	The laboratory shall use appropriate methods and procedures.		C			C		Industry accepted and nationally accepted technical methods utilized.
	Instructions on use and operation of all equipment and handling and preparation of t/c items, where absence would jeopardize results.		C			C		Available and in use where necessary. Observed compliance.
	Instructions, standards, manuals, and reference data available where necessary.		C			C		Confirmed. Available where necessary.
5.4.2	Selection of Methods							
	Use appropriate t/c methods, preferably international, regional or national standards.		C			C		Confirmed. Industry, national, and internationally accepted methods utilized.
	Ensure use of latest valid edition of standards, unless it is not appropriate or possible to do so.		C			C		Confirmed. The laboratory is choosing to utilize the ANSI C63.4 – 2004 version of the standard. Not the most recent version. Customer contract review details the use of this version.
	Laboratory shall select appropriate published methods when client has not specified method.		C			C		Client specifies in most instances.

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NO	REQUIREMENT	YOUR DOCUMENT	C	N	DOC REVIEW / PRE-ASSESSMENT NOTES	C	N	ASSESSMENT NOTES
	Laboratory methods or methods adopted may be used if appropriate for the intended use and validated. Client informed of method selected.		C			C		None utilized to support the scope testing.
	Confirm that it can perform standard methods before introducing the t/c. If standard method changes, confirmation shall be repeated.		C			C		None utilized to support the scope testing.
5.4.3	Laboratory-developed Methods							
	When necessary to use methods developed by the lab, the activity is planned and development assigned to a qualified person equipped with adequate resources.		C			C		None utilized to support the scope testing.
	Plans shall be updated and communicated to personnel involved.		C			C		None utilized to support the scope testing.

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5.4.4	Non-standard Methods							
	Subject to agreement with the client, and include a clear specification of client's requirements and purpose. Method shall be validated.		C			C		None utilized to support the scope testing.
Comments on the laboratory's compliance with this element:								
Laboratory appears compliant with all elements of this section at the time of the assessment. The laboratory is choosing to utilize the ANSI C63.4 – 2004 version of the standard. Not the most recent version. Customer contract review details the use of this version. L-A-B scope of accreditation reflects this version.								

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NO	REQUIREMENT	YOUR DOCUMENT	C	N	DOC REVIEW / PRE-ASSESSMENT NOTES	C	N	ASSESSMENT NOTES
5.4.5	Validation of Methods							
5.4.5.1	Validation definition							
5.4.5.2	Validate non-standard and laboratory-developed methods, those used outside their intended scope and amplification or modifications of standards methods, to confirm fitness for use.		C			C		The laboratory only utilizes accepted industry or nationally accepted methods as intended.
5.4.5.3	The range and accuracy of the values obtainable from validated methods shall be relevant to the client's needs.		C			C		Close contact with the clients confirm.
Comments on the laboratory's compliance with this element:								
Laboratory appears compliant with all elements of this section at the time of the assessment.								

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NO	REQUIREMENT	YOUR DOCUMENT	C	N	DOC REVIEW / PRE-ASSESSMENT NOTES	C	N	ASSESSMENT NOTES
5.4.6	Estimate of Uncertainty of Measurement							
5.4.6.1	Calibration laboratories or test laboratories performing their own calibrations shall have and apply a procedure to estimate uncertainty.		C			C		Testing laboratory.
5.4.6.2	Testing laboratories shall have and where necessary apply procedures for estimating uncertainty.		C			C		Testing defined as Type D per L-A-B Policy 001.1. Uncertainty procedure in place and uncertainty determinations are completed. Both appear appropriate.
5.4.6.3	All uncertainty components are taken into account.		C			C		Appropriate of this laboratory.

Comments on the laboratory's compliance with this element:

Laboratory appears compliant with all elements of this section at the time of the assessment

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5.4.7	Control of Data							
5.4.7.1	Calculations and data transfers shall be checked.		C			C		Observed compliance. Process in place to assure compliance. Data transfers are performed for some testing. Verification process in place. Observed compliance.
5.4.7.2	When computers or automated equipment are used, the lab shall ensure that:							
a)	Developed software is documented and validated.		C			C		Validations available where necessary. Mostly off the shelf data acquisition software utilized.
b)	Procedures are established and implemented for protection of data.		C			C		Procedure available. Observed compliance.
c)	Computers and automated equipment are properly maintained and in an environment that ensures proper functioning.		C			C		Observed compliance.
Comments on the laboratory's compliance with this element:								
Laboratory appears compliant with all elements of this section at the time of the assessment. Data appears to be handled and controlled appropriately and securely.								

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NO	REQUIREMENT	YOUR DOCUMENT	C	N	DOC REVIEW / PRE-ASSESSMENT NOTES	C	N	ASSESSMENT NOTES
5.5	**Equipment**							
5.5.1	Lab is furnished with all items of equipment required for correct performance of t/c.		C			C		The laboratory has all of the necessary equipment in place to perform correct testing.
5.5.1	Equipment outside its permanent control shall be controlled to meet 17025.		C			C		All equipment stays within the lab at all times.
5.5.2	Equipment and software shall meet the accuracy necessary for the t/c and comply with specifications.		C			C		Observed compliance for equipment supporting the scope testing. Verified during the technical evaluation.
5.5.2	Calibration program established for key quantities or values of the equipment where these properties have a significant effect on results.		C			C		Reviewed and discussed in detail the calibration program supporting the scope testing. Observed evidence of compliance.
5.5.2	Equipment shall be calibrated or checked to establish that it meets the specification requirements and complies with relevant standards before being put into service.		C			C		Observed compliance. All equipment that requires calibration was calibrated appropriately and up to date.
5.5.3	Equipment operated by authorized personnel. Up-to-date instruction on the use and maintenance readily available to operating personnel.		C			C		Authorizations available within the training program documentation.

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5.5.4	Equipment and software uniquely identified.		C			C		Observed compliance for all scope related equipment.
5.5.5	Records shall be maintained for each item of equipment, and shall include:		C			C		The laboratory has an appropriate system in place for maintaining equipment records. Observed compliance.
a)	Identity of item		C			C		OK
b)	Manufacturer's name, type identification and serial number or other unique identification.		C			C		OK
c)	Checks that equipment complies with the specification.		C			C		OK
d)	Current location, where appropriate.		C			C		OK
e)	Mfr.'s instructions, if available, or reference to their location.		C			C		OK
f)	Dates, results and copies of reports and certificates of calibration, adjustments, acceptance criteria, and due date of next calibration.		C			C		OK
g)	Maintenance plan, where appropriate, and maintenance carried out to date.		C			C		OK
h)	Damage, malfunction, modification or repair to		C			C		OK

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	Equipment.							
5.5.6	Procedures for safe handling, transport, storage, use and planned maintenance of equipment.		C			C		Procedures available where necessary.
5.5.7	Overloaded or mishandled equipment that gives suspect results taken out of service until repaired and calibrated.		C			C		Discussed and reviewed procedures. No examples observed at the time of the assessment. An appropriate program is in place to support compliance with this requirements if necessary.
5.5.7	Examine the effect of the defect or departure on previous t/c and initiate "Control of nonconforming work" procedures.		C			C		Procedures in place to assure. Lab personnel appeared to understand this requirement and their supporting procedures to assure compliance.
5.5.8	Equipment shall be labeled, coded or otherwise identified to indicate status of calibration, including date calibrated, and date or expiration criteria when calibration is due.		C			C		Observed evidence of compliance on all equipment utilized supporting the scope technical evaluations.

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5.5.9	If equipment goes outside the control of the lab, it shall be proven that the function and calibration status are satisfactory before being returned to service.		C			C		Performed when necessary.
5.5.10	Procedure for intermediate checks.		C			C		Procedures in place. Laboratory does perform when necessary. Observed compliance
5.5.11	Procedure to ensure that correction factors are updated correctly.		C			C		Procedures in place supporting this requirement.
5.5.12	Equipment and software shall be safeguarded from adjustments that would invalidate the t/c results.		C			C		Appeared appropriately protected.

Comments on the laboratory's compliance with this element:

The laboratory appears compliant with the requirements of this section. Observed all of the necessary equipment in place and properly controlled to perform and assure correct testing.

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NO	REQUIREMENT	YOUR DOCUMENT	C	N	DOC REVIEW / PRE-ASSESSMENT NOTES	C	N	ASSESSMENT NOTES
5.6	**Measurement Traceability**							
5.6.1	General							
	Programs and procedures for the calibration of t/c equipment that has a significant effect on results.		C			C		Observed an appropriate calibration program in place for all necessary equipment supporting the scope testing.
	Equipment calibrated before being placed in service.		C			C		Observed an appropriate calibration program in place for all necessary equipment supporting the scope testing.
5.6.2	Specific Requirements							
5.6.2.1	**Calibration**							
5.6.2.1.1	Calibration laboratory's program for calibration shall ensure traceability to the International System of Units (SI).		C			C		Testing Lab.
5.6.2.1.1	Calibration certificates shall contain the measurement results, including the measurement uncertainty and/or a statement of compliance with an identified metrological specification.		C			C		Testing Lab.

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5.6.2.1.2	Certain calibrations cannot be strictly made in SI units. In these cases, calibration shall provide confidence in measurements by establishing traceability to appropriate measurement standards such as:							
-	Use of certified reference materials provided by a competent supplier.		C			C		None utilized for scope testing.
-	Use of specified methods and/or consensus standards that are clearly described and agreed by all parties concerned.		C			C		None utilized for scope testing.
5.6.2.1.2	Participation in a suitable program of interlaboratory comparisons is required where possible.		C			C		The laboratory has very limited options available for the use of an approved PT provider. The laboratory has participated in this program. The laboratory does perform other quality assurance activities from 5.9 to support quality of testing.
5.6.2.2	**Testing**							
5.6.2.2.1	Test labs' requirements given in 5.6.2.1 apply for measuring and test equipment, unless it has been established that the calibration contributes little to the overall uncertainty of the results.		C			C		Observed compliance.

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5.6.2.2.2	Where traceability to SI units is not possible or relevant, certified reference materials, agreed methods and/or consensus standards are required as for calibration labs (see 5.6.2.1.2).		C			C		Laboratory compliant.
Comments on the laboratory's compliance with this element:								
The laboratory appears compliant with the requirements of this section.								

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5.6.3	Reference Standards & Reference Materials							
5.6.3.1	**Reference Standards**							
	Programs and procedures for calibration of reference standards.		C			C		Compliant. Procedures available detailing the use of standards where necessary.
	Reference standards shall be calibrated by a body that can provide traceability, as described in 5.6.2.1		C			C		None utilized for scope testing.
	Reference Standards used for calibration purposes only, unless shown that their performance as a standard is not invalidated.		C			C		None utilized.
	Reference standards shall be calibrated before and after any adjustment.		C			C		None utilized.
5.6.3.2	**Reference Materials**							
	Where possible, traceable to SI units, or to certified reference materials.		C			C		None utilized supporting scope testing.
	Internal reference materials shall be checked as far as technically and economically possible.		C			C		None utilized supporting scope testing.

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5.6.3.3	**Intermediate Checks**							
	Carried out according to defined procedures and schedules.		C			C		The laboratory has limited options but does perform intermediate checks where possible to assure correct testing.
5.6.3.4	**Transportation and Storage**							
	Procedures for safe handling, transport, and use of reference standards and materials.		C			C		
Comments on the laboratory's compliance with this element:								
The laboratory appears compliant with the requirements of this section.								

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NO	REQUIREMENT	YOUR DOCUMENT	C	N	DOC REVIEW / PRE-ASSESSMENT NOTES	C	N	ASSESSMENT NOTES
5.7	**Sampling**							
5.7.1	Where necessary, a sampling plan and procedures. Where possible, based on statistical methods		C			C		Sampling not performed by this lab.
5.7.1	Sampling plan and procedure are available where sampling takes place.		C			C		Sampling not performed by this lab.
5.7.2	Client-required deviations, additions or exclusion from the documented procedure shall be recorded in detail, with actual sampling data, and included in the documents containing the results.		C			C		Sampling not performed by this lab.
5.7.3	Procedures for recording data.		C			C		Sampling not performed by this lab.
Comments on the laboratory's compliance with this element:								
Sampling not performed by this lab to support scope testing.								

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NO	REQUIREMENT	YOUR DOCUMENT	C	N	DOC REVIEW / PRE-ASSESSMENT NOTES	C	N	ASSESSMENT NOTES
5.8	**Handling of Test and Calibration Items**							
5.8.1	Procedure for transporting, receipt, handling, protection, storage, retention and/or disposal of items		C		Policy and procedure in place.	C		Procedure in place and appears understood and followed by lab personnel.
5.8.2	Items identified and identity retained throughout life of item in lab.		C			C		Observed compliance. Sufficient systems in place to track sample identity.
5.8.3	Upon receipt of item, abnormalities or departures from normal or specified conditions are recorded. When suitability is in doubt, the client is notified.		C			C		Observed compliance
5.8.4	Procedures and facilities to avoid deterioration, loss or damage to t/c item.		C			C		Observed compliance.
Comments on the laboratory's compliance with this element:								
The laboratory appears compliant at the time of the assessment. The laboratory utilizes an appropriate sample tracking system. This system appears effective.								

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5.9	**Assuring the Quality of Test and Calibration Results**							
5.9.1	Procedures for monitoring validity of t/c results; which may include:		C			C		Quality assurance procedures are in place and utilized by the lab.
a)	Regular use of certified reference materials and/or internal qc using secondary reference material.		C			C		Reference materials not appropriate for this type of testing.
b)	Participation in interlaboratory comparison or proficiency testing.		C			C		The laboratory has very limited options available for the use of an approved PT provider. The laboratory has participated in this program. At the time of the assessment the final results were not completed by PT provider. The PT provider is currently compiling the data from participants.
c)	Replicate t/c using same or different methods.		C			C		Not typically performed.
d)	Retesting or recalibration of retained items.		C			C		Not typically performed.

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e)	Correlation of results for different characteristics of an item.		C			C		Not typically performed.
5.9.2	Analyze quality control data. If found outside predefined criteria, action to correct and prevent incorrect results from being reported shall be taken.		C			C		The laboratory has a process in place for review of quality assurance data. This data is reviewed and analyzed where available. Limited options available for quality assurance activities as defined in this section but performed and analyzed where possible.

Comments on the laboratory's compliance with this element:

The laboratory is compliant with the requirements of this section at the time of the assessment. The laboratory performs quality assurance activities where possible that support compliance with these requirements. The laboratory has very limited options available for the use of an approved PT provider but there does appear to be at least one approved provider offering a PT program. The laboratory has participated in this program. At the time of the assessment the final results were not completed by PT provider. The PT provider is currently compiling the data from other participants. Data will be provided to L-A-B once completed by the provider. Where available, the laboratory does perform other quality assurance activities from 5.9 to support quality of testing.

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5.10	**Reporting the Results**							
5.10.1	General							
	Results reported accurately, clearly, unambiguously and objectively, IAW instructions in the method.		C			C		Observed compliance. Test reports appeared clear and meeting the requirements of this section.
	Results reported in test report or calibration certificate includes information requested by the client and necessary for interpretation of results.		C			C		Laboratory appears compliant with the requirements of this section. Contract review defines the client reporting needs if different from standard reporting format.
	For internal clients, or with written agreement with client, results may be reported in a simplified way. All information required by 5.10.2 to 5.10.4 shall be readily available in the lab that performed the T/C.		C			C		No internal clients.
5.10.2	Test Reports and Calibration Certificates							

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NO	REQUIREMENT	YOUR DOCUMENT	C	N	DOC REVIEW / PRE-ASSESSMENT NOTES	C	N	ASSESSMENT NOTES
	Test reports and calibration certificates include 17025 listed information, unless they have a valid reason for not doing so.		C			C		Observed compliance. Reports appeared clear and detailed.
a)	Title		C			C		Observed Compliance.
b)	Name and address of lab and location where T/C was performed, if different from lab.		C			C		Observed Compliance.
c)	Unique identification of report or certificate, on each page and identification that the page is recognized as a part of the whole and a clear indication of the end of the report or certificate.		C			C		Observed Compliance.
d)	Name and address of client.		C			C		Observed Compliance.
e)	Identification of the method(s) used.		C			C		Observed Compliance.
f)	Description, condition, and unambiguous identification of the item tested or calibrated.		C			C		Observed Compliance.
g)	Date of receipt of item(s), where critical to results. Date(s) of performance of T/C.		C			C		Observed Compliance.
h)	Reference to the sampling plan and procedure.		C			C		Observed Compliance.

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i)	T/C results with, where appropriate, the units of measure.		C			C		Observed Compliance.
j)	Name(s), functions(s), and signatures of personnel authorizing the report/certificate.		C			C		Observed Compliance.
k)	Where relevant, a statement that the results relate only to the items t/c.		C			C		Observed Compliance.
5.10.3	Test Reports							
	Where necessary for the interpretation of results, the following shall be included in test reports:							
a)	Deviations, additions, or exclusions from the test method, and information on specific test conditions.		C			C		Laboratory has a process in place if necessary. Appeared understood. No examples observed.
b)	Where relevant, a statement of compliance/non-compliance with the requirements/specification.		C			C		Observed compliance.
c)	Where applicable, a statement of the estimated uncertainty.		C			C		Not currently required by customers. Statement provided on test reports

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d)	Where appropriate and needed, opinions and interpretations.		C			C		Observed compliance.
e)	Additional information required by methods, clients or groups of clients.		C			C		Observed compliance.
5.10.3.2	Sampling in reports shall include:							
a)	Date of sampling.		C			C		Sampling not performed.
b)	Unambiguous identification of the substance, material or product sampled.		C			C		Sampling not performed.
c)	Location of sampling.		C			C		Sampling not performed.
d)	Reference to sampling plan and procedure.		C			C		Sampling not performed.
e)	Environmental conditions during sampling that may affect the interpretations of results.		C			C		Sampling not performed.
f)	Standard or specification for the sampling method or procedure, and deviations, additions to or exclusions from the specification concerned.		C			C		Sampling not performed.
5.10.4	Calibration Certificates							

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5.10.4.1	Calibration certificates shall also include:							
a)	Conditions (e.g. environmental) under which the calibrations were made that influenced the results.							N/A – Test Reports
b)	Uncertainty of measurement and/or a statement of compliance with an identified metrological specification or clauses thereof.							N/A – Test Reports
c)	Traceability of measurements.							N/A – Test Reports
5.10.4.2	Certificates shall relate only to quantities and results of functional tests. If a statement of compliance with a specification is made, this shall identify which clauses of the specification are met or not met.							N/A – Test Reports
5.10.4.2	When a statement of compliance is made omitting the results and associated uncertainties, the lab shall record those results and maintain them for future reference.							N/A – Test Reports

Legend: C=Compliant, N=Noncompliant, Your Document=laboratory's document where compliance to the requirement is found and includes: Document name(s), paragraph number(s) or equivalent. IAW=in accordance with.

NO	REQUIREMENT	YOUR DOCUMENT	C	N	DOC REVIEW / PRE-ASSESSMENT NOTES	C	N	ASSESSMENT NOTES
5.10.4.2	When a statement of compliance is made, the uncertainty shall be taken into account.							N/A – Test Reports
5.10.4.3	When an item for calibration is adjusted or repaired, the results before and after adjustment or repair, if available, shall be reported.							N/A – Test Reports
5.10.4.4	Calibration certs and labels shall not contain recommendation on the cal interval, except where agreed with the client.							N/A – Test Reports
5.10.5	Opinions and Interpretations							
	Basis for opinions and interpretations. Opinions and interpretations clearly marked in report.		C			C		Opinions not provided for the scope testing.
5.10.6	Testing and Calibration Results Obtained from Subcontractors							
	Subcontracted test results clearly identified.		C			C		Subcontracting not performed.

Legend: C=Compliant, N=Noncompliant, Your Document=laboratory's document where compliance to the requirement is found and includes: Document name(s), paragraph number(s) or equivalent. IAW=in accordance with.

NO	REQUIREMENT	YOUR DOCUMENT	C	N	DOC REVIEW / PRE-ASSESSMENT NOTES	C	N	ASSESSMENT NOTES
	On subcontracted calibrations, the laboratory performing work shall issue the calibration certificate.		C			C		Subcontracting not performed.
5.10.7	Electronic Transmission of Results							
	Results transmitted by telephone, telex, fax, or other electronic or electromagnetic means shall follow the requirements of 17025.		C			C		Discussed reviewed procedures and practice. Laboratory is compliant.
5.10.8	Format of Reports and Certificates							
	Designed to minimize the possibility of misunderstanding or misuse.		C			C		Clear test report format.
5.10.9	Amendments to Reports or Certificates							
	Made in the form of a further document which includes statement: "Supplement to Test Report [or Calibration Certificate}, serial number [or as otherwise identified] or equivalent wording.		C			C		None observed but the process was reviewed and discussed to assure compliance with this requirement.

Legend: C=Compliant, N=Noncompliant, Your Document=laboratory's document where compliance to the requirement is found and includes: Document name(s), paragraph number(s) or equivalent. IAW=in accordance with.

NO	REQUIREMENT	YOUR DOCUMENT	C	N	DOC REVIEW / PRE-ASSESSMENT NOTES	C	N	ASSESSMENT NOTES
	Amendments shall meet the requirements of 17025.		C			C		None observed.
	When necessary to issue a complete new report or certificate, this shall be uniquely identified and contain reference to the original that it replaces.		C			C		None observed.

Comments on the laboratory's compliance with this element:

The laboratory appears to meet the requirements of this section. Test reports are very through and detailed. Reviewed several reports in detail to assure compliance.

Legend: C=Compliant, N=Noncompliant, Your Document=laboratory's document where compliance to the requirement is found and includes: Document name(s), paragraph number(s) or equivalent. IAW=in accordance with.

GENERAL L-A-B REQUIREMENTS

NO	REQUIREMENT	YOUR DOCUMENT	C	N	DOC REVIEW / PRE-ASSESSMENT NOTES	C	N	ASSESSMENT NOTES
1	The laboratory has evidence of traceability IAW Policy 001.		C			C		The laboratory appears to meet the requirements of L-A-B Policy 001 and 001.1. Traceability assured through 17025 accredited calibration laboratories.
2	The laboratory has evidence of the appropriate proficiency testing IAW Policy 002.		C			C		The laboratory has very limited options available for the use of an approved PT provider but there does appear to be at least one approved provider offering a PT program. The laboratory has participated in this program. At the time of the assessment the final results were not completed by PT provider. The PT provider is currently compiling the data from other participants. Data will be provided to L-A-B once completed by the provider. The laboratory performs quality assurance activities where possible that support compliance with these requirements. Where available, the laboratory does perform other quality assurance activities from 5.9 to support quality of testing.

Legend: C=Compliant, N=Noncompliant, Your Document=laboratory's document where compliance to the requirement is found and includes: Document name(s), paragraph number(s) or equivalent. IAW=in accordance with.

NO	REQUIREMENT	YOUR DOCUMENT	C	N	DOC REVIEW / PRE-ASSESSMENT NOTES	C	N	ASSESSMENT NOTES
3	The laboratory has evidence of no changes affecting the accreditation or those changes have been notified to L-A-B.		C			C		No staff changes.
4	Proposed Scope submitted in accordance with L-A-B instructions. (see appropriate Form 28 series)		C			C		Scope meets L-A-B requirements.

Legend: C=Compliant, N=Noncompliant, Your Document=laboratory's document where compliance to the requirement is found and includes: Document name(s), paragraph number(s) or equivalent. IAW=in accordance with.

LABORATORY ACCREDITATION BUREAU a division of A-S-B

EMC&T LAP

Form 406

Electromagnetics Compatibility & Telecommunications Accreditation Program Technical Checklist

(Based on the FCC Technical Assessment Evaluation Checklist - July 22, 2010)

Laboratory Information

Company Name	[redacted]
Laboratory Location	[redacted]
Assessor Name	Jason Stine (Lead); Victor Kuczynski (Technical)
Date of Assessment	April 3-4, 2013
Scope of Accreditation	C63.4-2003

Instructions to the Assessor: This checklist addresses specific criteria relating to accreditation of a laboratory to determine the capability and competence of that laboratory to perform tests to show compliance of equipment subject to the FCC EMC Regulations contained in 47 CFR Parts 2, 15, and 18. It is intended for use during the assessment phase of the accreditation process as a guide to evaluate the capability of the applicant laboratory facility and to determine the competency of the laboratory personnel for performing the required measurements. It is not intended to replace the good engineering judgment of the technical assessor or a thorough evaluation of the facility. Other points may and should be added to this checklist or the L-A-B Form 205.1 – Technical Competency Evaluation as the on-site assessment progresses.

Circle all items you observed and verified at the laboratory. Circle the letter "Y", representing "yes" to show conformance with the criteria. Circle the letter "N", representing "No", to show a non-compliance. If the item is "Not Applicable", circle "N/A". Record an explanation of any nonconformity or comment on the comment sheet provided at the end of the checklist.

I. **DOCUMENTATION** (The laboratory should have copies of appropriate FCC rules, standards and measurement methods based on its scope of accreditation.)				Comments
Y			1. C63.4-2003: *American National Standard for Method of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.*	
		N/A	2. ANSI C63.4-2009, *American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.*	Laboratory requested only C63.4 2003
		N/A	3. FCC MP-5-1986: *Methods of measurement of radio noise emissions from Industrial, Scientific and Medical (ISM) equipment.* *Note: This procedure is only required when the prospective testing laboratory is being accredited for measuring ISM equipment. The special conditions and requirements in MP-5 must be taken into consideration along with the specific requirements in 47 CFR Part 18, which do not always follow ANSI C63.4.*	Laboratory requested only C63.4 2003
Y			4. FCC Rules and Regulations, 47 CFR Parts 2, 15 and 18.	
II. MEASUREMENT INSTRUMENTATION				**Comments**
Y			5. Are 50 ohm /50 µH LISNs used per C63.4-2003, Clause 4.1.2 (C63.4-2009, Clause 4.3)? *Note: See 47CFR 18.307 which bases measurements on the use of a 50 ohm /50 µH LISN.*	
Y			6. Is the insertion loss of the LISN taken into account when determining the test result? (C63.4-2003, Annex E/C63.4-2009, Annex B)	

Y			7. Are the LISN impedance measurements made at the point where the Equipment Under Test (EUT) is connected to the LISN with 50 ohm termination on the instrumentation monitoring port? *Note: Connection of the EUT to the LISN socket or at the end of an extension cord may make a difference in line conducted measurements. (C63.4-2003, Annex E/C63.4-2009, Annex B)*	
Y			8. Are all unused EUT ports on the LISN appropriately terminated? (C63.4-2003, Annex E/C63.4-2009, Annex B)	
Y			9. Are the LISNs installed and used in accordance with C63.4-2003, Clauses 5, 6 and 7 (C63.4-2009, Clauses 5, 6 and 7) and MP-5? *Note: The test personnel should be prepared to demonstrate how the LISNs are installed and used.*	
Y			10. Does each of the antennas used for compliance measurements comply with the criteria in C63.4-2003, Clause 4.1.5 (C63.4-2009, Clause 4.5) and MP-5? *Note: Rod and log-spiral antennas are not permitted for FCC type measurements (47 CFR §15.31(a)(3)).*	
Y			11. Are the measurement antennas calibrated in accordance with ANSI C63.5? (C63.4-2003, Clause 4.1.5/C63.4-2009, Clause 4.7.2) *Note: The calibration procedure outlined in ANSI C63.5-2006 is based solely on horizontally polarized measurements performed at a standard antenna calibration site, with a measurement distance of 10 meters. The FCC has stated that ANSI C63.5-2006 should be used to calibrate measurement antennas (KDB Publication 822428).*	

Y			12. Are the measuring receiver(s) or spectrum analyzer(s) used for compliance measurements compliant with the requirements in C63.4-2003, Clause 4.1.1 (C63.4-2009, Clause 4.2)? *Note: Part 15 requires the use of measuring equipment in compliance with CISPR Publication 16 (47 CFR §15.35). C63.4-2009 references the specification in C63.2 or CISPR 16-1-1:2007. C63.4-2009, Clause 4.2.2 contains significant information on using spectrum analyzers. Annex H: "Precautions in using spectrum analyzers" is also relevant.*	
Y			13. Is any measurement software used by the testing laboratory documented in the test report? (C63.4-2009, Clause 10.2.7) *Note: The test personnel should be prepared to demonstrate any measurement software used including demonstration it is adequate for the measurement. When parameters are entered by the user of the test instrumentation, it is considered a data transfer and subject to appropriate checks, i.e., check that the correct calibration corrections factors are used and revision of entered parameters, calculations and logic are adequate and under revision control consistent with ISO/IEC 17025, Clause 4.3 and 5.4.7.2.*	
Y			14. Have the RF cables, RF switches, terminators, attenuators and pre-amplifiers been characterized in accordance with C63.4-2003, Clause 4.4.5 (C63.4-2009, Clause 4.7.5)? *Note: The reference in C63.4-2009 provides guidance on the insertion loss of cables and the impact of their exposure to the environment, with specific guidance on addressing temperature variations.*	

III. TEST FACILITIES				
A. Facilities for measuring power-line conducted emissions				**Comments**
Y			15. Are the power-line conducted ambient signal levels at least 6 dB below the limit per C63.4-2003, Clause 5.1.2 (C63.4-2009, Clause 5.1.2) or can it be demonstrated that the testing personnel are capable of using alternative methods provided in C63.4?	
Y			16. Does each line conducted facility used by the testing laboratory comply with the conditions and requirements of C63.4-2003, Clause 5.2 (C63.4-2009, Clause 5.2) and MP-5 as appropriate? Is the LISN electrically bonded to the reference ground plane?	
Y			17. Is the vertical conducting plane, if used, installed and used in accordance with C63.4-2003, Clause 5.2.2 (C63.4-2009, Clause 5.2.2)? Is the vertical plane bonded (3 cm minimum strap width) properly to the horizontal reference ground plane (3 bonds minimum)? *Note: The vertical conducting plane is optional in both editions of C63.4. Therefore the laboratory does not have to use it for table top products. However, in case of dispute, the test performed using a vertical conducting plane shall take precedence. This option was entered when conducted tests are performed at an open area test site with only a ground plane present and no conducting wall.*	
B. Facilities for measuring radiated emissions in the frequency range of 30 MHz to 1 GHz				**Comments**
Y			18. For each type and size of EUT to be measured, does each radiated emission test facility comply with the conditions and requirements of C63.4-2003, Clause 5.4 (C63.4-2009, Clause 5.4.4 and Annex D)?	
Y			19. Are LISN(s), filters, and isolation transformers, if used, installed in accordance with C63.4-2003, Clause 5.2.3 (C63.4-2009, Clause 5.2.3)? Is the LISN bonded to the ground reference plane?	

Y			20. Is the reflecting ground plane in accordance with C63.4-2003, Clause 5.4.3 (C63.4-2009, Clause 5.4.3)?	
Y			21. Is the EUT turntable installed and used in accordance with C63.4-2003, Clause 5.4.4 (C63.4-2009, Clause 5.1.3)?	
Y			22. Is the antenna positioner installed in accordance with C63.4-2003, Clause 5.4.5 (C63.4-2009, Clause 5.1.5)?	
Y			23. Does the radiated emission test site(s) meet the site validation requirements of C63.4-2003, Clause 5.4.6 (C63.4-2009, Clause 5.4.4) for the frequency range of 30 MHz to 1 GHz? *Note: In C63.4-2009 detailed requirements for the site validation are contained in a new Annex D. In Clause 5.4.4 reference to ground plane mounted LISNs are presented and should be verified that such LISNs are in place when performing site validations. In addition, "Is the special cabling connected to the antenna used: if so, is that cabling also used while making emissions measurements?"*	
Y			24. Was the test site validation for performing radiated emissions measurements below 1 GHz completed in the last three years? (C63.4-2003 Clause 5.4.6.2 and C63.4-2009, Clause 5.4.4.2)	
C. Facilities for measuring radiated emissions in the frequency range of 1 GHz to 40 GHz				**Comments**
Y			25. Has the sensitivity of the complete measurement system been determined and have any preamplifiers used to attain this sensitivity been checked to ensure that they do not cause distortion, spurious signals or overload (C63.4-2003, Clause 4.1.5.4/C63.4-2009, Clause 8.2.4)? *Note: In Clause 4.1.5.4 of C63.4-2003, there is a requirement that the overall measurement sensitivity is at least 6 dB below the applicable limits at the measurement distance used.*	The determination of the sensitivity of the entire measurement system to be at least 6dB below applicable limits has been initiated but is not completed yet all the way up to 40GHz. The laboratory has data supporting sensitivity up to 18GHz. The laboratory scope of accreditation is only up to this 18GHz range.

Y			26. Are the beamwidths of the measurement antennas known so that the beamwidth versus size of the EUT can be taken into account (C63.4-2003, Clauses 4.1.5.4, 8.2.4 and 8.3.1.2/C63.4-2009, Clauses 4.5.4 and 8.2.4)? Has the antenna beamwidth been verified and then considered in making measurements over the full frequency range of the test?	
Y			27. Does the EMI receiver or spectrum analyzer cover the required frequency range per the scope of accreditation for the measurements to be performed by the testing laboratory? (47 CFR §15.33/C63.4-2003, Clause 4.1.1/C63.4-2009, Clause 4.2)	
Y			28. Does the radiated emission test site(s) meet the site validation requirements for measurements above 1 GHz? (C63.4-2003, Clause 5.5/C63.4-2009, Clause 5.5) *Note: Site validation above 1 GHz includes that the site meets NSA below 1 GHz as required in both editions of C63.4. C63.4-2009 provides two options for test facilities used to make radiated emission measurements above 1 GHz, and clarifies that the use of RF absorbers on the top of the ground plane is permitted. (KDB Publication 704992)*	
IV. EMISSION TESTS				
A. Power-line conducted emission tests				**Comments**
Y			29. Are the AC power-line conducted emission tests performed in accordance with the applicable parts of C63.4-2003, Clauses 6 and 7 (C63.4-2009, Clauses 6 and 7), and 47 CFR §§15.31-15.35 and 15.107? *Note: The test personnel should be prepared to demonstrate how the power-line conducted emission measurements are performed.*	

Y			30. Are the guidelines in ANSI C63.4 and MP-5 followed for large EUTs, including *in-situ* measurements, if appropriate? C63.4-2003, Clause 4.1.3 (C63.4-2009, Clause 4.4)? *Note: Ask for a demonstration or description of how large EUTs are handled Ask the test personnel to explain what special measurements, test equipment and conditions are required when the power requirement is greater than the rated capacity of the LISN.*	
Y			31. Is the conducted emission test setup in accordance with C63.4 with the required separation between the EUT and any conducting surfaces maintained? (C63.4-2003, Clauses 6 and 7/C63.4-2009, Clauses 6 and 7) *Note: (1) For a tabletop EUT, C63.4-2003 Figure 10a/C63.4-2009, Figure 7.* *(2) For a floor-standing EUT, C63.4-2003, Figure 10b/C63.4-2009, Figure 8.* *(3) For combination equipment, C63.4-2003, Figure 14/C63.4-2009, Figure 13.* *(4) For floor standing equipment interconnected via an overhead cable trays, C63.4-2003, Figures 12a and 12b/C63.4-2009, Figures 11 and 12.*	
Y			32. Is the conducted emission test performed on the AC cord supplying power to a common power strip, when the device has the power strip as part of the EUT which contains multiple power cords that use the power strip? (C63.4-2003, Clause 7.2.1/C63.4-2009, Clause 7.3.1)	
Y			33. Is the excess power cord length between the EUT and the LISN folded back and forth in a bundle, located in the center of the power cord, not to exceed 40 cm? (C63.4-2003, Clause 7.2.1/C63.4-2009, Clause 7.3.1)	
Y			34. Is the EUT connected to one LISN and all the peripherals connected to one or more LISNs or a power strip to one LISN? (C63.4-2003, Clause 7.2.1/C63.4-2009, Clause 7.3.1)	

Y			35. Does the final conducted emission test represent the maximized cable configuration and worst case mode of EUT operation as based on the configuration from the exploratory tests? (C63.4-2003, Clause 7.2.4/C63.4-2009, Clause 7.3.4)	
Y			36. For each type of EUT, are measurements made over the correct frequency ranges and the correct detectors and bandwidth as required by 47 CFR §§15.33, 15.35 and 18.309?	
B. Radiated Emission Tests				**Comments**
Y			37. Are the radiated emission tests performed in accordance with C63.4-2003 Clauses 6, 8, and 11 (C63.4-2009, Clauses 6, 8, and 11)? *Note: The test personnel should be prepared to demonstrate how the radiated emission measurements are performed.*	
Y			38. Is the radiated emission test setup for an EUT with a video display in accordance with C63.4-2003, Clause 11.1.3/C63.4-2009, Clause 11.4 and Figure 15?	
Y			39. Do the procedures for handling ambient emissions follow C63.4-2003, Clause 5.1.2 (C63.4-2009, Clause 5.1.2)?	
Y			40. Are exploratory and final radiated measurements made in accordance with C63.4-2003, Clauses 8.3, and 11 (C63.4-2009, Clauses 8.3, and 11)? *Note: An informative annex is provided in C63.-2003, Annex C/C63.4-2009, Annex E – Method of exploratory radiated emission maximization.*	
Y			41. Is the radiated emission test setup in accordance with C63.4-2003, Figures 11a (tabletop), 11b (floor standing), 14 (combination floor standing and tabletop), and 12a and 12b (floor standing interconnected via overhead cable trays/C63.4-2009, Figures 9 (tabletop), 10 (floor standing), 13 (combination table top and floor standing) and Figures 11 and 12 (floor standing interconnected via overhead cable trays).	

Y			42. For Information Technology Equipment (ITE), is the EUT operated and tested in accordance with the procedures in C63.4-2003, Clause 11 (C63.4-2009, Clause 11)?	
Y			43. Are unintentional radiators, other than ITE, tested in accordance with the requirements in 47 CFR §15.31 and the procedures in C63.4-2003, Clause 12 and Annex G (C63.4-2009, Clause 12) and MP-5?	
Y			44. Are intentional radiators tested in accordance with the requirements in 47 CFR §15.31 and the procedures in C63.4-2003, Clause 13 and Annex H (C63.4-2009, Clause 13)?	
Y			45. Does the radiated emission measurement represent the maximized cable configuration and worst case mode of EUT operation as based on exploratory testing configuration? (C63.4-2003, Clause 8.3.1.2/C63.4-2009, Clauses 8.3.2.1 and 8.3.2.2)	
Y			46. For each type of EUT, are the correct frequency ranges investigated and the correct measurement detectors and bandwidth used per 47 CFR §§15.33 and 15.35?	
Y			47. For products in which the limits from CISPR 22 are used to demonstrate compliance with 47 CFR Part 15, are the measurements made in accordance with 47 CFR §15.109(g)? *Note: The test procedures in C63.4-2003 or C63.4-2009 shall be used to determine compliance to the radiated emission limits The EUT is required to comply with the FCC radiated emission limits above 1 GHz.*	
		N/A	48. If the laboratory has a TEM waveguide, are the requirements followed in making radiated emission measurements using TEM waveguides? (C63.4-2003, Annex L/C63.4-2009, Annex F)	Laboratory doesn't use TEM for radiated emission measurements.
V. TEST REPORTS *(Assessor should request to review several sample test reports for various types of products.)*				**Comments**

Y			49. Does each of the test reports contain all the required information and does the laboratory follow the report disposition procedure (C63.4-2003, Clauses 10.1 and 10.2/C63.4-2009, Clauses 10.2 and 10.3, and 47 CFR Part 2)?	
Y			50. Does the test report reference the standard used (C63.4-2003, Clause 10.1.1/C63.4-2009, Clause 10.2.1 and FCC Public Notice DA 09-2478) and define any deviations (C63.4-2003, Clause 10.1.9/C63.4-2009, Clause 10.2.9 and FCC Public Notice DA 09-2478)?	
Y			51. Is the rationale for selecting and arranging the EUT clearly stated and are the components of the EUT system clearly identified per C63.4-2003, Clause 10.1.2 (C63.4-2009, Clause 10.2.2)?	
Y			52. Does the test report include photographs or detailed sketches of the EUT configuration per C63.4-2003, Clause 10.1.12 (C63.4-2009, Clause 10.2.12)?	
Y			53. Does the measurement report include a sample calculation with all conversion and correction factors used? (C63.4-2003, Clauses 10.1.4, 10.1.5 and 10.1.8/C63.4-2009 Clauses 10.2.4, 10.2.5 and 10.2.8)	
VI. PERSONNEL COMPETENCY ***(The following is a list of general or lead-in questions, which are intended to be used as a guide to assess competency of laboratory personnel. Additional specific questions should be used to determine the technical competency of the personnel performing the measurement.)***				**Comments**
Y			54. Are laboratory personnel able to obtain recent and appropriate interpretations of the FCC Rules?	
Y			55. Do the test personnel know how to determine if an emission is from the EUT or is an ambient signal? Do the test personnel know how to handle an emission that is close to, or coincident with, an ambient signal? (C63.4-2003, Clause 5.1.2/C63.4-2009, Clause 5.1.2)?	

Y			56. Do the test personnel know how to identify and avoid potential overload conditions of the test instrumentation? (C63.4-2003, Clause 4.1.1.2/C63.4-2009, Clause 4.2.2 and Annex H.3)	
Y			57. For measurement of ISM equipment, are the test personnel knowledgeable of the intricacies and special procedures in MP-5 and the rules in 47 CFR Part 18?	
Y			58. Can the test personnel explain the FCC requirements for testing a product in accordance with the requirements in 47 CFR §§15.31-15.37? Are the test personnel knowledgeable of the FCC testing conditions for different types of products?	
		N/A	59. For a testing laboratory providing *in-situ* testing services, can the test personnel satisfactorily describe how measurements would be performed at the user's location (consistent with ANSI C63.4-2003, Clauses 5.6 and 8.3.2/C63.4-2009, Clauses 5.6 and 8.3.3, and IEEE 139)	Laboratory doesn't provide in-situ testing.
Y			60. Have one of the laboratory personnel, at each type of site, replicate at least three frequency points on the horizontal site attenuation and at least three frequency points on the vertical site attenuation. Is the test performed correctly and is the site attenuation data at these frequencies consistent with the previously recorded data? *Note: Pick frequencies from previous data that have both low and high deviations from the NSA.*	

I hereby attest that at the time of assessment, the laboratory's technical capabilities met the aforementioned requirements based on a reasonable assessment sampling basis subject to effective corrective action for any nonconformities noted in the overall Accreditation Body (AB) reports of the assessment.

Assessor(s) Signature

April 4 /2013

Date

The FCC has developed the questions contained in this checklist to be used by the AB to assist in the assessment of EMC testing laboratories. The FCC also requires the AB to provide them with a copy of the completed checklist revealing the technical competence of the laboratory for the specific tests required by the FCC, and to meet APEC TEL MRA obligations. Please be advised that all information provided to the FCC will be made publicly available, as directed by the Freedom of Information Act (FOIA), unless a confidentiality request is submitted to the FCC with the recognition request pursuant to 47 CFR 0.457 and 0.459. Please note that failure to authorize L-A-B to submit this document to the FCC may result in the FCC's not recognizing your laboratory as an "Accredited" testing laboratory.

I hereby grant permission to L-A-B, providing this assessment, at the request of the FCC to release a copy of this completed checklist to the FCC.

[redacted] 4/4/13

Laboratory Authorized Representative Signature *Date*

4-4-13

L-A-B Representative Signature *Date*

Continue to Annex A to complete site attenuation information.

Comments and Non Compliances

Instructions to the Assessor: Use this sheet to document comments and Non-Compliances. For each, identify the appropriate item number from the checklist. If additional space is needed, make copies of this page (or use additional blank sheets).

Item No.	Comments and/or Reference to L-A-B Form 33 Non-Compliances

Annex A: Site Attenuation Information	
Please complete the Site Attenuation information below during the on-site assessment.	
NSA measurement verification facility address:	[redacted]
Site Description (i.e., 3 m, 10 m, OATS, Chamber):	10m OATS with fiber-glass enclosure around EUT, large enough to cover 3m test distance

Note: Acceptance value is +/- 4 dB from the theoretical value (C63.4-2003, Clause 5.4.6/ C63.4-2009, Clause 5.4.4, *Site quality validation*).

Transmit antenna height: 1m				
Test distance: 10m				
Frequency (MHz)	***Old Value (dB) (Deviation from Theoretical NSA)***	***New Value (dB) (Deviation from Theoretical NSA)***	***Polarization***	***Position***
30	3.8	-3.8	Vertical	center
180	-2.3	-2.1	Vertical	center
800	0.3	0.7	Vertical	center
Transmit antenna height: 1m				
Test distance: 10m				
Frequency (MHz)	***Old Value (dB) (Deviation from Theoretical NSA)***	***New Value (dB) (Deviation from Theoretical NSA)***	***Polarization***	***Position***
40	0.0	1.8	Horizontal	center
160	0.7	1.5	Horizontal	center
900	-1.6	-2.2	Horizontal	center

LABORATORY ACCREDITATION BUREAU

Certificate #[redacted]

Scope of Accreditation For

[redacted]

In recognition of a successful assessment to ISO/IEC 17025 2005 and the requirements of the L-A-B Electromagnetics Compatibility & Telecommunications Laboratory Accreditation Program (EMC & T LAP), accreditation is granted to [redacted] to perform the following tests:

Accreditation granted through: June 4, 2013

Testing – Electrical - EMC / EMI

Technology	Range, when necessary	Methods Used	Product Types	Remarks
Measurement of Radio-Noise Emissions From Low-Voltage Electrical and Electronic Equipment	9 kHz to 18 GHz	ANSI C63.4 - 2003		

Notes:

1) This laboratory offers commercial testing service.

Changed the range [redacted] 4/4/13

4-4-2013

4-4-13

Issued: 6/4/12 Revised: 6/20/12

LABORATORY ACCREDITATION BUREAU

Form 218.1 Technical Review Checklist

Assessment Information

Company Name	[redacted]			**Date(s) of Assessment**	**Start:** 4/3/13	**Finish:** 4/4/13	
Location (site)	[redacted]			**Assessment Type**	**Year 0 Reassessment**		
L-A-B Program(s)	**LABPR 408 EMC**						
Lead Assessor	**Jason Stine**			**Team Assessor / Tech Expert**	**Victor Kuczynski**		
L-A-B Reviewer	**Ryan Fischer**	**Date**	**4/16/13**	**TAG Reviewer**	**David Zimmerman**	**Date**	**4/16/13**

Signatures of Approval

DHausch	DHausch	4/16/13
Signature of L-A-B Admin Staff (Division Coordinator, Office Manager, Technical Support)	Print Name	Date
	David Zimmerman	4/29/13
Signature of TAG Reviewer (If necessary)	Print Name	Date
	Ryan Fischer	4/19/13
Signature of L-A-B Reviewer (if necessary)	Print Name	Date
	R.D.L.	4/29/13
Signature of L-A-B Program Manager or Managing Director	Print Name	Date

LABORATORY ACCREDITATION BUREAU

Form 218.1 Technical Review Checklist

L-A-B Technical Reviewer Recommendation

Recommendation	INDICATOR	Comments
Unconditional Approval		
Conditional Approval		
Suspension Recommended		
Additional Review Necessary	X	Review of the uncertainty budgets to be completed by L-A-B TAG Member.

Review Done 4/29/13

TAG Technical Reviewer Recommendation

Recommendation	INDICATOR	Comments
Unconditional Approval		
Conditional Approval		
Suspension Recommended		
Additional Review Necessary	X	In order to add ANSI C63.4 – 2009 to the scope of accreditation, the uncertainty figures for that test method will need to be reviewed. As for the current scope which shows ANSI C63.4 – 2003, if the uncertainty budget has been reviewed, then no further review is necessary for that test method.

Review Done 4/29/13

Assessment Package Documentation

Documentation Requirements for Assessment	Data Sent to L-A-B	
	Electronic	Hard Copy
Assessment Summary (one submitted for each site, signed by assessor and client)	X	
Participants List	X	
Assessment Checklist (Form 48B, Form 214.2, Form 214.3, Form 403.3, etc.)	X	
Assessor & Client Approved Signed Scope of Accreditation	X	
Supporting Uncertainty Budgets for the Scope (Calibration / Dimensional Measurement Labs)	X	
Needs Assessment (and supporting uncertainties, if necessary) (Testing Labs)	X	
Traceability Tracking (submitted as completed by the laboratory)	X	
Non-compliance Report (Where necessary)	X	
ILC / PT Tracking and Laboratories most recent PT results	X	
Technical Competency Assessments (Form 205.1, Form 403.2, etc)	X	
Complete Expense Report (Must be sent to Accounting within 5 days of completion of the assessment)	x	

LABORATORY ACCREDITATION BUREAU

Form 218.1 Technical Review Checklist

Technical Review

Assessment Package Section	C / NC	Notes / Remarks
Section 1 – Assessment Plan / Assessment Report / Participants List		
Assessment Plan Verify that the Opening Meeting is within the assessment plan.	C	L-A-B Admin Review: Reviewed and approved. Opening meeting included on assessment plan; dh
Assessment Report Verify completeness. Must include comments on competence and conformity.	C	L-A-B Admin Review: Review and approved. Summary included on form 14 assessment report; dh
	C	L-A-B Technical Review: Assessment summary within the file. Summary provides a good narrative on the activities that took place during the assessment. Report identifies that there is a change to a scope range and 0 noncompliance's.
Participants list Verify availability and completeness.	C	L-A-B Admin Review: Reviewed and approved. dh
Section 2 – Assessment Checklist		
Assessment Checklist Verify completeness. Necessary for initial, full and surveillance assessments.	C	L-A-B Technical Review: Form 48B completed for the reassessment. Client provided a pdf version and completed the "Your Document" column. Checklist completed with expected level of detail on the observations made during the assessment.
	C	TAG Review: Form 48B is populated, and almost every line item has a comment associated with it. The items on the checklist appear to have been appropriately investigated for compliance.
Section 3 – Scope of Accreditation / Uncertainty Budgets / Needs Assessment / Traceability Tracking		
Assessor and Client signed Scope of Accreditation This should have the client and Assessor's signature. It should be reviewed for accuracy of scope. This must be present for all assessments.	C	L-A-B Technical Review: Proposed scope provided with signatures from the assessment team and client. Change identified on the proposed scope as referenced on the Form 14.
	C	TAG Review: There is a PDF version of form 28.6 that is signed by the client and assessor.

Assessment Package Section	C / NC	Notes / Remarks
Testing Laboratories	C	L-A-B Technical Review: Needs assessment provided identifying Type D test. The uncertainty provided and further review by TAG member is needed.
Needs Assessment The current year's documentation of uncertainty, If necessary. See Policy 001 for guidance to evaluate compliance.	C	TAG Review: The form for Needs Assessment is complete and indicates method ANSI C63.4 – 2009 with a Type D assessment. The documentation of uncertainty will need to be reviewed by a TAG member.
Traceability Tracking Assure availability and suitability.	C	L-A-B Technical Review: Traceability Tracking Form meets the requirements of Policy 001 and sources of traceability are compliant with the policy as well.

Section 4 – Non-Compliance

Corrective Action – L-A-B Review	N/C #	L-A-B Technical Review - Comments
Verify evidence is sufficient for closure of Non-Compliance. Laboratory shall submit their internal corrective action along with sufficient evidence that the corrective and preventive action has been implemented. The evidence of implementation shall be present in the technical package.		
Corrective Action - TAG Review Verify evidence is sufficient for closure of Non-Compliance. Laboratory shall submit their internal corrective action along with sufficient evidence that the corrective and preventive action has been implemented. The evidence of implementation shall be present in the technical package.		

LABORATORY ACCREDITATION BUREAU

Form 218.1 Technical Review Checklist

Assessment Package Section	C / NC	Notes / Remarks
Section 5 – Proficiency Testing		
Proficiency Testing Verify laboratory Proficiency Testing activities have been reviewed and documented as part of the assessment package. Verify unique identification of participant. Assure current years PT is properly identified and data is available	C	L-A-B Technical Review: As noted in the Form 48B The laboratory performs quality assurance activities where possible that support compliance with these requirements. The laboratory has very limited options available for the use of an approved PT provider but there does appear to be at least one approved provider offering a PT program. The laboratory has participated in this program. At the time of the assessment the final results were not completed by PT provider. The PT provider is currently compiling the data from other participants. Data will be provided to L-A-B once completed by the provider.
	C	TAG Review: As explained above by the L-A-B Technical Reviewer, the laboratory has participated in a PT program however, the results have not yet been provided to the lab by the PT provider.
Section 6 – Technical Competence Evaluation		
Technical Competency Assessments Verify form is completed with sufficient detail to establish the scope of the technical competence evaluation performed by the technical evaluators. This form should list the specific items from the scope witnessed and which laboratory personnel were involved in the witnessing.	C	L-A-B Technical Review: Form 205.1 completed for the scope and Form 406 for FCC Technical Checklist questions have been addressed.
	C	TAG Review: Form 406 has been completed and signed indicating that the laboratory personnel are technically competent.

Any special notes or observations should be reported here.

Comments from L-A-B Admin Staff (Division Coordinator, Office Manager, Technical Support):

None.

Comments from L-A-B Technical Review: No further comments needed.

Comments from TAG Technical Review: The assessment appears to have been thorough, and professionally performed. All documents appear to be in order, and properly populated.

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Certificate #[redacted]

Scope of Accreditation

For

[redacted]

In recognition of a successful assessment to ISO/IEC 17025 2005 and the requirements of the L-A-B Electromagnetics Compatibility & Telecommunications Laboratory Accreditation Program (EMC & T LAP), accreditation is granted to [redacted] to perform the following tests:

Accreditation granted through: June 4, 2016

Testing – Electrical - EMC / EMI

Technology	Range, when necessary	Methods Used	Product Types	Remarks
Measurement of Radio-Noise Emissions From Low-Voltage Electrical and Electronic Equipment	9 kHz to 18 GHz	ANSI C63.4 - 2003		

Notes:

1) This laboratory offers commercial testing service.

Approved by: _____ Date: May 2, 2013

R. Douglas Leonard
Chief Technical Officer

Reissued: 5/2/13

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Certificate of Accreditation

ISO/IEC 17025:2005 **Certificate Number** [redacted]

[redacted]

has met the requirements set forth in L-A-B's policies and procedures, all requirements of ISO/IEC 17025:2005 "General Requirements for the competence of Testing and Calibration Laboratories" and the requirements of the L-A-B Electromagnetics Compatibility & Telecommunications Laboratory Accreditation Program (EMC & T LAP).*

The accredited lab has demonstrated technical competence to a defined "Scope of Accreditation" and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009).

Accreditation valid through: June 4, 2016

R. Douglas Leonard, Jr., President, COO
Laboratory Accreditation Bureau
Presented the 2nd of May 2013

*See the laboratory's Scope of Accreditation for details of accredited parameters
**Laboratory Accreditation Bureau is found to be in compliance with ISO/IEC 17011:2004 and recognized by ILAC (International Laboratory Accreditation Cooperation) and NACLA (National Cooperation for Laboratory Accreditation).